

Penan's Oroo' Short Message Signs (PO-SMS): Co-design of a Digital Jungle Sign Language Application

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Abstract. Oroo', a very peculiar jungle sign language of the semi-nomadic Penan in Malaysia, Borneo Island, is at the virtue of extinction with recent changes in lifestyle. The youth inhabiting the rainforest are more drawn to technology than traditional forest activities needing cognizance of Oroo'. In partnership with community members of Long Lamai, as part of a long term collaboration, we launched into revitalizing Oroo' through digitalization. Complementing previous efforts of database, tangible and game developments, we postulate that a language can only be revitalized if integrated in daily use. Thus in this paper we present the co-design of the Penan's Oroo' Short Message Signs (PO-SMS) application, which extends current technology driven communication means. Following a community-based co-design approach, a group of local youth and elders have led the unique design of their own digital indigenous communication tool. Our research contributes directly to the INTERACT 2015 theme of "Connection.Tradition.Innovation".

Keywords: Indigenous language · Community-based Co-design · Oroo' · Local content creation

1 Introduction

"Many linguists predict that at least half of the world's 6,000 or so languages will be dead or dying by the year 2050. Languages are becoming extinct at twice the rate of endangered mammals and four times the rate of endangered birds" ([1] as cited in [2]).

Countless indigenous languages have emerged over epochs of which many have already disappeared and others are at the virtue of extinction. Besides spoken and written languages, a great variation of alternative local language systems such as sign languages have evolved. The languages vary by degrees of complexity and strengths of expression. The most developed and current sign languages are without doubt the deaf signing languages which are composed of gestures symbolizing words or letters. Another well-known sign communication is composed of smoke signals, one of the oldest forms of long-distance visual communication. The Native Americans have developed complex